

Exhibit G

Exhibit G – U.S. Patent No. 11,388,664

Toyota makes, uses, tests, offers for sale, sells, and/or imports vehicles that comply, operate in accordance, and/or are configured in accordance with 3GPP Series of one or more of 3GPP releases 8-16. Such vehicles are collectively referred to as the “Accused Products.” The Accused Products include Toyota and Lexus-branded vehicles that support LTE and that were made in, used in, tested in, offered for sale in, sold in, or imported into the United States by Toyota at some point in time since 2018. Each of the Accused Products supports LTE and, thus, includes the features and functionality identified in this chart. The features and functionality identified in this chart cause the Accused Products to practice the asserted claims of U.S. Patent No. 11,388,664 (the “’664 patent”).

Claim 15	Accused Products
[PRE] A user equipment (UE) comprising:	An Accused Product is a “user equipment” (UE).
[A] a receiver operable to receive control channel information; and	The Accused Products include hardware/software configured to receive signals when communicating using LTE (i.e., a receiver). As evidenced below, the hardware/software configured to receive signals when communicating using LTE is operable to receive control channel information.

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Claim 15	Accused Products
	<p data-bbox="772 256 1692 293">9 Physical downlink control channel procedures</p> <p data-bbox="772 337 1755 418">9.1 UE procedure for determining physical downlink control channel assignment</p> <p data-bbox="772 451 1325 488">9.1.1 PDCCH Assignment Procedure</p> <p data-bbox="772 508 1824 626">The control region consists of a set of CCEs, numbered from 0 to $N_{\text{CCE},k} - 1$ according to Section 6.8.2 in [3], where $N_{\text{CCE},k}$ is the total number of CCEs in the control region of subframe k. The UE shall monitor a set of PDCCH candidates for control information in every non-DRX subframe, where monitoring implies attempting to decode each of the PDCCHs in the set according to all the monitored DCI formats.</p> <p data-bbox="772 646 1745 748">The set of PDCCH candidates to monitor are defined in terms of search spaces, where a search space $S_k^{(L)}$ at aggregation level $L \in \{1, 2, 4, 8\}$ is defined by a set of PDCCH candidates. The CCEs corresponding to PDCCH candidate m of the search space $S_k^{(L)}$ are given by</p> $L \cdot \left\{ (Y_k + m) \bmod \left\lfloor N_{\text{CCE},k} / L \right\rfloor \right\} + i$ <p data-bbox="772 846 1776 902">where Y_k is defined below, $i = 0, \dots, L - 1$ and $m = 0, \dots, M^{(L)} - 1$. $M^{(L)}$ is the number of PDCCH candidates to monitor in the given search space.</p> <p data-bbox="772 922 1803 976">The UE shall monitor one common search space at each of the aggregation levels 4 and 8 and one UE-specific search space at each of the aggregation levels 1, 2, 4, 8. The common and UE-specific search spaces may overlap.</p> <p data-bbox="772 995 1824 1040">The aggregation levels defining the search spaces are listed in Table 9.1.1-1. The DCI formats that the UE shall monitor depend on the configured transmission mode as defined in Section 7.1.</p> <p data-bbox="705 1097 1041 1135">Source: TS 36.213,¹ p. 64</p>
[B][1] circuitry operable to search for a control channel in the control channel information by decoding control channels represented by	As evidenced below, the Accused Products include circuitry operable to search for a control channel in the control channel information by decoding control channels represented by nodes of a tree structure using an identifier.

¹ 3GPP TS 36.213 V8.8.0 (2009-09) Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures (Release 8)

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nodes of a tree structure using an identifier,	<div><div>9.1 UE procedure for determining physical downlink control channel assignment</div><div>9.1.1 PDCCH Assignment Procedure</div><div><p>The control region consists of a set of CCEs, numbered from 0 to $N_{\text{CCE},k} - 1$ according to Section 6.8.2 in [3], where $N_{\text{CCE},k}$ is the total number of CCEs in the control region of subframe k. The UE shall monitor a set of PDCCH candidates for control information in every non-DRX subframe, where monitoring implies attempting to decode each of the PDCCHs in the set according to all the monitored DCI formats.</p><p>The set of PDCCH candidates to monitor are defined in terms of search spaces, where a search space $S_k^{(L)}$ at aggregation level $L \in \{1, 2, 4, 8\}$ is defined by a set of PDCCH candidates. The CCEs corresponding to PDCCH candidate m of the search space $S_k^{(L)}$ are given by</p>$L \cdot \left\{ (Y_k + m) \bmod \left\lfloor N_{\text{CCE},k} / L \right\rfloor \right\} + i$<p>where Y_k is defined below, $i = 0, \dots, L - 1$ and $m = 0, \dots, M^{(L)} - 1$. $M^{(L)}$ is the number of PDCCH candidates to monitor in the given search space.</p><p>The UE shall monitor one common search space at each of the aggregation levels 4 and 8 and one UE-specific search space at each of the aggregation levels 1, 2, 4, 8. The common and UE-specific search spaces may overlap.</p><p>The aggregation levels defining the search spaces are listed in Table 9.1.1-1. The DCI formats that the UE shall monitor depend on the configured transmission mode as defined in Section 7.1.</p><p>Table 9.1.1-1: PDCCH candidates monitored by a UE.</p><table><tr><th rowspan="2">Type</th><th colspan="2">Search space $S_k^{(L)}$</th><th rowspan="2">Number of PDCCH candidates $M^{(L)}$</th></tr><tr><th>Aggregation level L</th><th>Size [in CCEs]</th></tr><tr><td rowspan="4">UE-specific</td><td>1</td><td>6</td><td>6</td></tr><tr><td>2</td><td>12</td><td>6</td></tr><tr><td>4</td><td>8</td><td>2</td></tr><tr><td>8</td><td>16</td><td>2</td></tr><tr><td rowspan="2">Common</td><td>4</td><td>16</td><td>4</td></tr><tr><td>8</td><td>16</td><td>2</td></tr></table></div></div>	Type	Search space $S_k^{(L)}$		Number of PDCCH candidates $M^{(L)}$	Aggregation level L	Size [in CCEs]	UE-specific	1	6	6	2	12	6	4	8	2	8	16	2	Common	4	16	4	8	16	2
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	<div><div>6.8Physical downlink control channel</div><div>6.8.1PDCCH formats</div><div><p>The physical downlink control channel carries scheduling assignments and other control information. A physical control channel is transmitted on an aggregation of one or several consecutive control channel elements (CCEs), where a control channel element corresponds to 9 resource element groups. The number of resource-element groups not assigned to PCFICH or PHICH is N_{REG}. The CCEs available in the system are numbered from 0 and $N_{CCE} - 1$, where $N_{CCE} = \lfloor N_{REG} / 9 \rfloor$. The PDCCH supports multiple formats as listed in Table 6.8.1-1. A PDCCH consisting of n consecutive CCEs may only start on a CCE fulfilling $i \bmod n = 0$, where i is the CCE number.</p><p>Multiple PDCCHs can be transmitted in a subframe.</p><p>Table 6.8.1-1: Supported PDCCH formats</p><table><tr><th>PDCCH format</th><th>Number of CCEs</th><th>Number of resource-element groups</th><th>Number of PDCCH bits</th></tr><tr><td>0</td><td>1</td><td>9</td><td>72</td></tr><tr><td>1</td><td>2</td><td>18</td><td>144</td></tr><tr><td>2</td><td>4</td><td>36</td><td>288</td></tr><tr><td>3</td><td>8</td><td>72</td><td>576</td></tr></table></div></div>	PDCCH format	Number of CCEs	Number of resource-element groups	Number of PDCCH bits	0	1	9	72	1	2	18	144	2	4	36	288	3	8	72	576
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	<div><p>Source: TS 36.211,² p. 58</p><div><div>8Physical uplink shared channel related procedures</div><div>[...]</div><div><p>If a UE is configured by higher layers to decode PDCCHs with the CRC scrambled by the C-RNTI, the UE shall decode the PDCCH according to the combination defined in table 8-3 and transmit the corresponding PUSCH. The scrambling initialization of this PUSCH corresponding to these PDCCHs and the PUSCH retransmission for the same transport block is by C-RNTI.</p></div></div></div>																				
	<div><p>Source: TS 36.213, pp. 52-54</p></div>																				

² 3GPP TS 36.211 V8.9.0 (2009-12) Evolved Universal Terrestrial Radio Access (E-UTRA); Physical Channels and Modulation (Release 8)

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[B][2] the tree structure having three or more levels,	<div>As evidenced below, the tree structure has three or more levels.</div> <div><div>6.8 Physical downlink control channel</div><div>6.8.1 PDCCH formats</div><div>The physical downlink control channel carries scheduling assignments and other control information. A physical control channel is transmitted on an aggregation of one or several consecutive control channel elements (CCEs), where a control channel element corresponds to 9 resource element groups. The number of resource-element groups not assigned to PCFICH or PHICH is N_{REG}. The CCEs available in the system are numbered from 0 and $N_{CCE} - 1$, where $N_{CCE} = \lfloor N_{REG} / 9 \rfloor$. The PDCCH supports multiple formats as listed in Table 6.8.1-1. A PDCCH consisting of n consecutive CCEs may only start on a CCE fulfilling $i \bmod n = 0$, where i is the CCE number.</div><div>Multiple PDCCHs can be transmitted in a subframe.</div><div>Table 6.8.1-1: Supported PDCCH formats</div><table><tr><th>PDCCH format</th><th>Number of CCEs</th><th>Number of resource-element groups</th><th>Number of PDCCH bits</th></tr><tr><td>0</td><td>1</td><td>9</td><td>72</td></tr><tr><td>1</td><td>2</td><td>18</td><td>144</td></tr><tr><td>2</td><td>4</td><td>36</td><td>288</td></tr><tr><td>3</td><td>8</td><td>72</td><td>576</td></tr></table></div>	PDCCH format	Number of CCEs	Number of resource-element groups	Number of PDCCH bits	0	1	9	72	1	2	18	144	2	4	36	288	3	8	72	576
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[B][3] the nodes of the tree structure at a highest level of the tree structure comprising a single control channel element and nodes of the tree structure at lower levels of the tree structure comprising a plurality of consecutive control channel elements,	<div>As evidenced below, the nodes of the tree structure at a highest level of the tree structure comprising a single control channel element and nodes of the tree structure at lower levels of the tree structure comprising a plurality of consecutive control channel elements.</div>																				

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[B][4] wherein control channel allocations at the highest level of the tree structure are limited and control channel allocations increase more the lower the level of the three or more levels of the tree structure.	As evidenced below, control channel allocations at the highest level of the tree structure are limited and control channel allocations increase more the lower the level of the three or more levels of the tree structure.																				

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	<div><div>9.1 UE procedure for determining physical downlink control channel assignment</div><div>9.1.1 PDCCH Assignment Procedure</div><div>The control region consists of a set of CCEs, numbered from 0 to $N_{\text{CCE},k} - 1$ according to Section 6.8.2 in [3], where $N_{\text{CCE},k}$ is the total number of CCEs in the control region of subframe k. The UE shall monitor a set of PDCCH candidates for control information in every non-DRX subframe, where monitoring implies attempting to decode each of the PDCCHs in the set according to all the monitored DCI formats.</div><div>The set of PDCCH candidates to monitor are defined in terms of search spaces, where a search space $S_k^{(L)}$ at aggregation level $L \in \{1, 2, 4, 8\}$ is defined by a set of PDCCH candidates. The CCEs corresponding to PDCCH candidate m of the search space $S_k^{(L)}$ are given by</div><div>$L \cdot \left\{ (Y_k + m) \bmod \left\lfloor N_{\text{CCE},k} / L \right\rfloor \right\} + i$</div><div>where Y_k is defined below, $i = 0, \dots, L - 1$ and $m = 0, \dots, M^{(L)} - 1$. $M^{(L)}$ is the number of PDCCH candidates to monitor in the given search space.</div><div>The UE shall monitor one common search space at each of the aggregation levels 4 and 8 and one UE-specific search space at each of the aggregation levels 1, 2, 4, 8. The common and UE-specific search spaces may overlap.</div><div>The aggregation levels defining the search spaces are listed in Table 9.1.1-1. The DCI formats that the UE shall monitor depend on the configured transmission mode as defined in Section 7.1.</div><div>Table 9.1.1-1: PDCCH candidates monitored by a UE.</div><table><thead><tr><th rowspan="2">Type</th><th colspan="2">Search space $S_k^{(L)}$</th><th rowspan="2">Number of PDCCH candidates $M^{(L)}$</th></tr><tr><th>Aggregation level L</th><th>Size [in CCEs]</th></tr></thead><tbody><tr><td rowspan="4">UE-specific</td><td>1</td><td>6</td><td>6</td></tr><tr><td>2</td><td>12</td><td>6</td></tr><tr><td>4</td><td>8</td><td>2</td></tr><tr><td>8</td><td>16</td><td>2</td></tr><tr><td rowspan="2">Common</td><td>4</td><td>16</td><td>4</td></tr><tr><td>8</td><td>16</td><td>2</td></tr></tbody></table></div>	Type	Search space $S_k^{(L)}$		Number of PDCCH candidates $M^{(L)}$	Aggregation level L	Size [in CCEs]	UE-specific	1	6	6	2	12	6	4	8	2	8	16	2	Common	4	16	4	8	16	2
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	<table><tr><th></th><th colspan="3">LTE Search Space</th><th rowspan="2">CCEs available for allocation per UE</th></tr><tr><th>Aggregation</th><th>UE-Specific</th><th>Common</th><th>Total</th></tr><tr><td>Level-1</td><td>6</td><td>0</td><td>6</td><td>6</td></tr><tr><td>Level-2</td><td>6</td><td>0</td><td>6</td><td>12</td></tr><tr><td>Level-4</td><td>2</td><td>4</td><td>6</td><td>24</td></tr><tr><td>Level-8</td><td>2</td><td>2</td><td>4</td><td>32</td></tr></table>		LTE Search Space			CCEs available for allocation per UE	Aggregation	UE-Specific	Common	Total	Level-1	6	0	6	6	Level-2	6	0	6	12	Level-4	2	4	6	24	Level-8	2	2	4	32
	LTE Search Space			CCEs available for allocation per UE																										
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Level-4	2	4	6	24																										
Level-8	2	2	4	32																										

Claim 18	Accused Products
The UE of claim 15, wherein the identifier is a cell radio network temporary identifier (C-RNTI) associated with the UE.	<p>As evidenced below, the identifier is a cell radio network temporary identifier (C-RNTI) associated with the UE.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>8 Physical uplink shared channel related procedures</p> <p>[...]</p> <p><u>If a UE is configured by higher layers to decode PDCCHs with the CRC scrambled by the C-RNTI, the UE shall decode the PDCCH according to the combination defined in table 8-3 and transmit the corresponding PUSCH. The scrambling initialization of this PUSCH corresponding to these PDCCHs and the PUSCH retransmission for the same transport block is by C-RNTI.</u></p> </div> <p>Source: TS 36.213, pp. 52-54</p>